

5(4)

SOV/76-33-1-11/45

AUTHORS: Yegorov, M. M., Kiselev, V. F., Krasil'nikov, Z. G., Murina, V. T.

TITLE: The Effect of the Surface Nature of Silica Gel and Quartz on Their Adsorption Properties (Vliyaniye prirody poverkhnosti silikagelya i kvartsa na ikh adsorbtsionnyye svoystva) III. Heats of Wetting of Silicon Dioxide With Various Liquids (III. Teplooty smachivaniya kremnezema razlichnymi zhidkostyami)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 1, pp 65-73 (USSR)

ABSTRACT: In connection with previous papers the effect of the hydration of the surface of silicon dioxide on the adsorption energy of water and methanol in the form of heat of wetting (HW) is investigated. HW was determined in several SiO_2 samples with water, methanol, n-propanol, and n-heptane in dependence on the hydration degree of the surface. Data on the HW of the silica gels KSK with water were taken from M. M. Yegorov's thesis (Ref 18). The HW was measured by means of a calorimeter with a temperature sensitivity of $5 \cdot 10^{-5}^\circ\text{C}$. A table of the investigated silica gels with the HW obtained for water is given. An investigation of the effect of the glowing temperature on the HW

Card 1/3

SOV/76-33-1-11/45

The Effect of the Surface Nature of Silica Gel and Quartz on Their Adsorption Properties. III. Heats of Wetting of Silicon Dioxide With Various Liquids

(Fig 1) showed that a glowing temperature of 200-300°C the function curves pass through a maximum. An increase in the glowing temperature up to 1000°C resulted in a surface decrease, e. g. in silica gel K-2, of several m^2/g . A treatment at 300°C is considered the standard. Here, the dependence of the HW on the hydration of the surface is expressed by a straight line. A wetting of thermally dehydrated samples with water results in the formation of hydration heat. A hydrated quartz surface differs qualitatively from a corresponding silica gel surface which can be explained by the closer packing of the hydroxyl groups (in quartz); however, investigations have still to be carried out in this respect (e. g. according to the method of the core-paramagnetic resonance). The HW of methanol does not depend on the porosity of the silica gels, which is the case with n-propanol and n-heptane. In the case of partly dehydrated surfaces a greater HW is obtained by the use of methanol than by that of water which can be explained by the effect of the methyl group in the adsorption. The results of the investigations show that the HW

Card 2/3

SOV/76-33-1-11/45

The Effect of the Surface Nature of Silica Gel and Quartz on Their Adsorption Properties. III. Heats of Wetting of Silicon Dioxide With Various Liquids

of the silica gel with water and methanol depends essentially on the hydration degree of the surface which is not the case with n-heptane. The authors thank B. V. Il'in and G. I. Aleksandrova. There are 3 figures, 1 table, and 22 references, 14 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

Card 3/3

05806

5(4)

SOV/76-33-10-4/45

AUTHORS: Yegorov, M. M., Kiselev, V. F., Krasil'nikov, K. G.

TITLE: On the Problem of the Adsorptive Power of a Unit of the Quartz Surface

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 10, pp 2141-2144 (USSR)

ABSTRACT: Since the quantity of adsorbed OH groups depends on the number of free corners of the SiO_4 tetrahedron which project into the surface of the silica-gel skeleton, it was assumed (Refs 2-4) that differences in the degree of hydration of silica gels (Refs 1-4) is connected with the manner in which the tetrahedron is packed (in dependence on the conditions of silica-gel preparation). The adsorptive properties of samples of amorphous silicon dioxide of various origin (silica gels and quartz glass) were therefore compared with those of quartz samples since the latter has the densest packing of SiO_4 tetrahedrons. The authors investigated powder samples obtained by grinding (carried out by L. A. Feygin), crystalline quartz and transparent quartz glass. The samples were ground in dry state as well as under the addition of water. The adsorptive properties of the samples are listed (Table: quartz, Kv-1, -2, -3 samples, quartz glass, sample KS-1 and the silica gels KSK-1

Card 1/2

05806

SOV/76-33-10-4/45

On the Problem of the Adsorptive Power of a Unit of the Quartz Surface

and K-2). Comparison of the adsorption isothermal lines (Fig) shows that the adsorptive power of quartz depends on the conditions under which the samples were pulverized. The adsorption isothermal lines of the samples which were ground in dry state or with a small addition of water attain considerably higher values than those of samples ground in wet state. The isothermal lines of water vapor adsorption of samples (ground under the same conditions) obtained from crystalline quartz Kv-3 and quartz glass KS-1 (Fig 1) indicate that the isothermal line of isotropic quartz glass attains higher values than that of crystalline quartz. Accordingly, results do not confirm the view of A. V. Kiselev (Refs 11, 12) as to the same adsorptive properties of crystalline and amorphous silicon dioxide. In conclusion, the authors thank K. V. Chmutov. There are 2 figures, 1 table, and 12 references, 9 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: February 26, 1958

Card 2/2

YEGOROV, M.M.; KISELEV, V.F.; KRASIL'NIKOV, K.G.

Effect of the nature of silica gel and quartz on their adsorptive capacities. Part 5: Structure of the surface of crystalline and amorphous modifications of silica. Zhur. fiz.khim. 35 no.9:2031-2038 '61. (MIRA 14:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Silica) (Adsorption)

YEGOROV, M.M.; KISELEV, V.F.; KRASIL'NIKOV, K.G. (Moscow)

Effect of the nature of silica gel and quartz surfaces on their adsorption properties. Part 5: Adsorption of water vapor on the surface of crystalline and amorphous modifications of silica. Zhur.fiz.khim. 35 no.10:2234-2240 0 '61. (MIRA 14:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Adsorption) (Silica)

YEGOROV, M.M.

Characteristics of the surface of catalytically active aluminum oxide.
Dokl. AN SSSR 140 no.2:401-404 S '61. (MIRA 14:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
Predstavleno akademikom M.M.Dubininym.
(Aluminum oxide) (Surface chemistry)

YEGOROV, M.M.; IGNAT'YEVA, L.A.; KISELEV, V.F.; KRASIL'NIKOV, K.G.;
TOPCHIYEVA, K.V.

Surface properties of catalytically active aluminum oxide.
Zhur. fiz. khim. 36 no.9:1882-1889 S '62. (MIRA 17:6)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova,
fizicheskoy fakul'tet i khimicheskoy fakul'tet.

YEGOROV, M.M.

Introducing automatic submerged-arc welding of lens compensators
for gas-turbine units. *Biul.tekh.-ekon.inform.Cos.nauch.-issl.inst.*
nauch.i tekhn.inform. 18 no.5:24-25 My '65.

(MIRA 18:6)

L 35325-56 EMT(m)/ENP(t)/ETI IJP(c) JD

ACC NR: AP6026838

SOURCE CODE: UR/0020/66/166/002/0395/0398

AUTHOR: Prudnikov, R.V.; Kiselev, V.F.; Yegorov, M.M.

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet)

TITLE: Investigation of the adsorption properties of a germanium dioxide surface

SOURCE: AN SSSR. Doklady, v. 166, no. 2, 1966, 395-398

TOPIC TAGS: germanium compound, adsorption, hydrolysis, dehydration, molecular structure, chemical stability, reaction temperature

ABSTRACT: The authors studied the adsorption properties of germanium dioxide specimens produced by hydrolysis of germanium tetrachloride. Water was used as the adsorbate since it is highly sensitive to the state of the oxide surface. Curves are given showing the specific surface, content of structural water calculated per gram and per square meter of the surface, and irreversible adsorption of water as functions of temperature. The greatest losses of water take place when the specimen is heated to 300°. Dehydration takes place without any noticeable change in the specific surface. Calculation of the structural water content per unit area shows an unusually high value at low temperatures, much greater than that for silicon and titanium oxides. Apparently a part of the water at low temperatures is located in structural defects in deformed GeO_2 particles produced by partial transition from the

Card 1/2

UDC: 541.183.2

09/6 2590

L 35325-66

ACC NR: AP6026838

2

dense tetragonal form in which the germanium atom is surrounded by six coordination linked atoms of oxygen to a looser hexagonal form with tetrahedrally located oxygen atoms. An increase in the solubility of the hexagonal form would facilitate the introduction of water molecules. This introduction of water may be one of the reasons for instability of germanium devices. Measurements show that the specific primary adsorption of specimens increases when the heat treatment temperature is raised from 20 to 300°. Specimens annealed at 300° show maximum adsorption activity. Adsorption drops sharply when the heat treatment temperature is raised further. Irreversible adsorption increases with temperature up to 400-500° and then decreases. The article was presented by Academician M.M. Dubinin on 4 June 1965. The authors thank L.N. Kurbatov for his support of the work and K.G. Krasil'nikov for his valuable discussion of the results. [JPRS: 36,455]

SUB CODE: 07 / SUBM DATE: 02Jun65 / ORIG REF: 010 / OTH REF: 004

Card 2/2

hkh

KOZIN, Ya.D., YEGOROV, M.N., red.

[Problems of karst in the southern part of the European U.S.S.R.]
Voprosy karsta na iuge Evropeiskoi chasti SSSR. Kiev, Izd-vo
Akademii nauk USSR, 1956. 191 p. (MIRA 11:10)

1. Akademiya nauk URSS, Kiev. Krymskiy filial.
(Karst)

YEGOROV, M. N.

The biochemical origin of oxalemia and oxaluria. A. L. Yudelev, M. N. Egorov and N. B. Manuzyova. *Arch. sci. biol.* (U. S. S. R.) 40, No. 1, 77-80 (in English 80) (1979).—In comparing the various methods for the detn. of oxalic acid in the blood, the authors obtained the best results from a modification of that of Merz and Maugeri (C. A. 20, 4889). Oxalemia was found in experimental and clinical anoxemias of various origins. The theory of the origin of oxalic acid in carbohydrate and glycine metabolism was not confirmed. W. A. Perlweig

11f

YEGOROV, M. N.

ch

118

The phosphorus fractions in venous blood. I. The acid-soluble fraction in the venous blood of normal man with a method for its determination. N. B. Manusova and M. N. Yegorov. *Arch. sci. Biol.* (U. S. S. R.) 40, No. 1-2 (1930). In aliquots of fecal CCHCOOH filtrates the following fractions were detd.: total acid-sol. P; inorg. P, including ortho- and pyrophosphate separately; org. P as the sol. Ba salts of the phosphate ester, and the insol. Ba salts of the esters. The total and org. P fractions were analyzed after oxidation with H_2SO_4 and H_2O_2 . The final colorimetric reaction is one involving the use of $(\text{NH}_4)_2\text{MoO}_4$ and a photographic reducing agent (Rikunogen). Normal variations in the above fractions in 22 persons are given. II. Fractions of acid-soluble P in various diseases involving disturbances of mineral, carbohydrate and protein metabolism. M. N. Yegorov and N. B. Manusova. *Ibid.* 90-104. Only in one case of phosphaturia was there found a hyperphosphatemia with increased H_2PO_4 and the insol. ester fractions. In a clinically advanced case of rickets the H_2PO_4 fraction was increased. In cases of fracture, arteriosclerosis, diabetes and various forms of hepatitis no changes in the P fractions were observed. The sol. ester fraction was found to be the most const. in various pathol. conditions. III. Fractions of acid-soluble phosphorus in the venous blood in various renal diseases. *Ibid.* 105-112 (in English 112). The most pronounced changes were found in the azotemic and nephrosis forms of nephritis. A true (total) hyperphosphatemia is a late manifestation of renal disease and was observed rarely. The qual. changes are more characteristic of the various forms. The increase in inorg. P frequently observed in nephritis is more than offset by a decrease in the org. P fractions. Diagnostically and prognostically the insol. ester fraction may be of greater importance than the inorg. P. W. A. P.

YEGOROV, M.N.; LARIKOVA, V.I.

Complex inflation method of gastric function test in certain gastro-intestinal diseases. Ter. arkh., Moskva 24 no.1:22-36 Jan-Feb 52.

(CJML 21:4)

1. Professor for Yegorov. 2. Of the Therapeutic Sanitary Administration of the Kremlin (Head—P.I. Yegorov, Corresponding Member of the Academy of Medical Sciences USSR).

YEGOROV, M.N.

YEGOROV, M.N., professor; LARIKOVA, V.I. (Moskva)

~~CONTAINED IN~~

Use of various anticoagulants in myocardial infarction and in
stenocardia. Klin. med. 32 no.5:45-51 My '54. (MLBA 7:7)

(ANGINA PECTORIS, therapy,

*anticoagulants)

(MYOCARDIAL INFARCT, therapy,

*anticoagulants)

(ANTICOAGULANTS, therapeutic use,

*angina pectoris & myocardial infarct)

YEGOROV, M.N.

[Antibiotics, the new drugs; penicillin, streptomycin, chloromycetin,
and others] Novye lechebnye sredstva - antibiotiki; penitsillin,
streptomitsin, levomitsetin i dr. Moskva, Medgiz, 1955. 43 p.
(Antibiotics) (MLRA 8:4)

USSR/Medicine - Nutrition

FD-3290

Card 1/1 Pub. 141 - 5/19

Author : Yegorov, M. N.; Levitskiy, L. M.; Prostyakov, K. M.

Title : Therapeutic nutrition for obesity

Periodical : Vop. pit., 17-26, Jul/Aug 1955

Abstract : Two basic diets are administered to patients being treated for obesity at the Clinic of Therapeutic Nutrition, Academy of Medical Sciences USSR. Diet I, a preliminary diet used to get the system adapted to decreased caloric intake, consists of the following: proteins - 18%; fats - 28%; carbohydrates - 54%. The patients are then placed on Diet II, which consists of: proteins-28%; fats - 44%, carbohydrates - 28%. Three variations of each of the above diets were also used to fit individual cases, i.e. according to age, weight, sex, etc. In conjunction with the dieting, special contrast days were used wherein the same low caloric content was maintained, but the menu consisted almost entirely of either fats, proteins or carbohydrates. Changes in eating schedule were used to break the stereotype of eating, thus decreasing the appetite. Discusses the physiological aspects of the above diet which is said to rapidly improve the regulation of fat metabolism without any harmful side effects. Three tables; four graphs; no references.

Institution : Clinic of Therapeutic Nutrition, Acad Med Sci USSR, Moscow

YEGOROV, M.N., professor

Diet in obesity. Zdorov'e 1 no.7:30 J1 '55
(CORPULENCE) (DIET IN DISEASE)

(MIRA 9:5)

YEGOROV, M.N.; PROSTYAKOV, K.M.

"Diseases of the endocrine system and metabolism" by V.G.Baranov.
Reviewed by M.N.Yegorov, K.M.Prostiakov. Vop.pit. 15 no.6:56-58
N-D '56.

(METABOLISM, DISORDERS OF) (MIRA 9:12)
(BARANOV, V.G.) (ENDOCRINOLOGY)

YEGOROV, Mikhail Nikolayevich; LEVITSKIY, L.M.

[Obesity; pathogenesis, clinical aspects, treatment] Ozhirenie;
patogenez, klinika, lechenie. Moskva, Medgiz, 1957. 234 p.
(CORPULENCE)
(MIRA 10:11)

YNGOROV, M.N.; LEVITSKIY, L.M.; PROSTYAKOV, K.M.

Clinical aspects and treatment of obesity. Vop.pit. 16 no.5:36-44
S-0 '57. (MIRA 11:3)

1. Iz kliniki lechebnogo pitaniya (zav. - prof. F.K.Men'shikov)
Instituta pitaniya AMN SSSR, Moskva.
(OBESITY,
(Rus))

YEGOROV, M.N., prof., MISHCHENKO, Ye.D., SYCHEVA, A.N., KRASNOVA, A.M.

Chemotherapy of diabetes mellitus and problems of dietotherapy.
Terap. arkh. 30 no.7:18-25 J1'58 (MIRA 11:8)

1. Iz kliniki lechebnogo pitaniya (sav. - prof. F.K. Men'shikov)
Instituta pitaniya AMN SSSR.

(ANTIDIABETICS, therapeutic use,
(Rus))

(DIETS, in var. dis.
diabetes mellitus (Rus))

(DIABETES MELLITUS, therapy
diets (Rus))

YEGOROV, M.N.; YEKISENINA, N.I.

Use of fasting therapy of obesity. Vop.pit. 18 no.5:8-11 S-0 '59.
(MIRA 13:1)

1. Iz Kliniki lechebnogo pitaniya Instituta pitaniya AMN SSSR, Moskva.
(HUNGER ther.)
(OBESITY ther.)

LEVITSKIY, L.M., doktor med.nauk; YEGOROV, M.N., prof.; KUDINOVA, T.I.;
LIBERMAN, A.B.; ZIKSEYEVA, V.K. (Moskva)

Associated antibiotic and dietetic therapy in chronic infectious
angiocholecystitis [with summary in English]. Klin.med. 37 no.2:
79-87 F '59. (MIRA 12:3)

1. Iz kliniki lechebnogo pitaniya (zav. - prof. F.K. Men'shikov)
Instituta pitaniya AMN SSSR (dir. - chlen-korrespondent AMN SSSR
prof. O.P. Molchanova).

(CHOLECYSTITIS, therapy,

antibiotics & diet ther. in chronic infect. angio-
cholecystitis (Rus))

(BILE DUCTS, dis.

chronic infect. angiocholecystitis, antibiotic &
diet ther. (Rus))

(ANTIBIOTICS, ther. use,

chronic infect. angiocholecystitis, with diet ther. (Rus))

(DIETS, in var. dis.

chronic infect. angiocholecystitis, with antibiotics
(Rus))

YEGOROV, M. M., prof.; LEVITSKIY, L. M., doktor meditsinskikh nauk (Moskva)

Curability of some forms of diabetes mellitus. Klin. med. no.8:
19-25 '61. (MIRA 15:4)

1. Iz kliniki lechebnogo pitaniya (zav. - doktor meditsinskikh nauk L. M. Levitskiy) Instituta pitaniya AMN SSSR (dir. - chlen-korrespondent AMN SSSR prof. O. P. Molchanova)

(DIABETES)

YEGOROV, M.N.

Some metabolism disorders in diabetes mellitus and their dynamics
during compound treatment. Vop. pit. 21 no.1:3-9 Ja-F '62.

(MIRA 15:2)

1. Iz kliniki lechebnogo pitaniya (zav. - doktor med.nauk L.M.Levitskiy)
Instituta pitaniya AMN SSSR, Moskva.
(DIABETES) (METABOLISM, DISORDERS OF)

S/076/62/036/009/002/011
B101/B102

AUTHORS: Yegorov, M. M., Ignat'yeva, L. A., Kiselev, V. F., Krasil'nikov, L. G., and Topchiyeva, K. V.

TITLE: Study of the surface properties of catalytic aluminum oxide

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 9, 1962, 1882 - 1889

TEXT: The specific heat of wetting of commercial Al_2O_3 by water, methanol, ethanol, and n-heptane, and the content of structural water Al_2O_3 were measured, the phase composition of Al_2O_3 was determined by x-ray analysis, and the infrared spectrum of deuterated Al_2O_3 was taken. Whereas with n-heptane the heat of wetting is independent of the content of structural water in Al_2O_3 , it increases, in the case of water and alcohols, with increasing thermal dehydration of Al_2O_3 . Since, however, the specific surface of Al_2O_3 becomes smaller at high annealing temperatures, the heat of

Card 1/3

S/076/62/036/009/002/011
B101/B102

Study of the surface ...

wetting calculated per g of Al_2O_3 reaches a maximum for Al_2O_3 heated at 500°C. The curve for heat of wetting (Q , erg/cm²) versus structural water (μ mole/m²) shows the following sections: (1) Increase of Q after thermal treatment of Al_2O_3 at 20 - 150°C owing to removal of the adsorbed H_2O ; (2) unchanged Q at 170 - 200°C in spite of dehydration of the bayerit in the bulk of Al_2O_3 ; (3) Q increases at 200 - 500°C owing to dehydration of the Al_2O_3 surface; (4) sharp increase of Q between 500 and 700°C, although the content of structural water changes only little in this range owing to formation of γ - Al_2O_3 ; (5) increase of Q at 800-900°C owing to formation of κ , δ , θ , and α - Al_2O_3 (corundum). The infrared spectrum of deuterated Al_2O_3 showed a broad 2630 cm⁻¹ band which disappeared at 400°C (interacting OD groups), a narrow band at 2755 cm⁻¹ (free, non-interacting OD groups), and a narrow 2710 cm⁻¹ band (weakly bound OD groups). For gibbsite, maximum hydration was calculated to be $\sim 22 \mu\text{mole/m}^2$; for the (0001) face of corundum, the hydration amounts to $12.7 \mu\text{mole/m}^2$. The coordination sphere of the Al

✓

Card 2/3

Study of the surface ...

3/076/62/036/009/002/011
B101/B102

surface atoms which is not fully occupied after the thermal dehydration is filled up by water or alcohols with formation of hydrate or alcoholates, respectively. The irreversible sorption of alcohols increases after thermal treatment of Al_2O_3 at high temperature. There are 4 figures and 2 tables.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova, Fizicheskiy i khimicheskiy fakul'tety (Moscow State University imeni M. V. Lomonosov, Physical and Chemical Departments)

SUBMITTED: November 1, 1960

Card 3/3

YEGOROV, M.N.

Graduation in the solenoidal field of "Aldan" and
MKVE-1 microvoltmeters. Razved. i okh.nedr 31 no.4:
56-57 Ap '65. (MIRA 19:1)

1. Yakutskoye geologicheskoye upravleniye.

YEGOROV, M.N.

Mode of eliminating the effect of relief in the alternating
charge method. Vest. IGU 20:64-72 '65.

(MIRA 18:4)

GRASHCHENKOV, N.I., otv. red.; YEGOROV, M.N., prof., nauchn.
konsul'tant, otv. red.

[Cardiovascular diseases and metabolic diseases; works
by the physicians of the Central Hospital and of the
Polyclinic of the Academy of Sciences of the U.S.S.R.]
Serdechno-sosudistye zabolevaniia i bolezni obmena ve-
shchestv; raboty vrachei Tsentral'noi bol'nitsy s po-
liklinikoi AN SSSR. Moskva, Nauka, 1964. 205 p.

(MIRA 18:1)

1. Akademiya nauk SSSR. Otdeleniye biologicheskikh nauk.
2. Chlen-korrespondent AN SSSR (for Grashchenkov).

YEGOROV, Mikhail Nikolayevich, prof.; LEVITSKIY, Leonid Markovich,
doktor med. nauk; IPATOV, V.P., red.

[Obesity] Ozhirenie. Izd.2., perer. i dop. Moskva, Me-
ditsina, 1964. 305 p. (MIRA 18:1)

YEGOROV, M.P.; KHEYFETS, I.S.; OBLOKULOV, S., red.; SALAKHUTDINOVA, A.,
tekhn. red.

[Organizing the working area of a machine-tool operator] Stanokchining ish urnini tashkil etish. Toshkent, Uzbekiston SSR davlat nashrieti, 1961. 69 p. [In Uzbek] (MIRA 15:1)
(Machine-shop practice)

BORISOV, V.V.; DUBYANSKIY, M.A.; STOLBOV, V.S.; TUROV, A.A.; SHUTKIN, L.N.; YEGOROV, M.P., red.; KUROCHKIN, V.D., red.; BERDNIKOVA, N.D., red.-leksikograf; SAVIN, B.V., red.-leksikograf; KRUPENNIKOVA, I.A., red.-leksikograf; DANILOVA, Z.S., red.-leksikograf; BUKOVSKAYA, N.A., tekhn. red.

[Dictionary of foreign military abbreviations] Slovar' inostrannykh voennykh sokrashchenii. Pod red. M.P.Egorova. Moskva, Voen. izd-vo M-va oborony SSSR, 1961. 891 p. (MIRA 15:2)
(Abbreviations) (Military art and science--Dictionaries)

MUSIN, M.M.; YEGOROV, M.P.

How to reduce labor consumption? Mashinostroitel' no.10:35-36 0
'65. (MIRA 18:10)

TURCHUK, Anatoliy Artem'yevich; TITOV, Petr Savvat'yevich; YEGOROV, Mikhail Sergeyevich; ORLOV, Lev Nikolayevich; MEDVEDEV, Nikolay Vasil'yevich; BUBNOV, Ye.S., redaktor; SERGHEEVA, H.A., redaktor; GUROVA, O.A., tekhnicheskij redaktor

[ZIP-300 core drilling unit] Burovoi agregat ZIP-300. Moskva,
Gos.nauchno-tekhn.izd-vo lit-ry po geol.i okhrane nedr, 1955. 197 p.
[Microfilm] (Boring machinery) (MLRA 9:3)

YEGOROV, M.S.

YEGOROV, M.S.

Vibration damping chucks. Mashinostroitel' no.1:19-20 Ja '58.
(Chucks) (Damping (Mechanics)) (MIRA 11:1)

PHASE I BOOK EXPLOITATION

757

Bykov, Leonid Tikhonovich; Yegorov, Mikhail Spiridonovich, and Tarasov, Pavel Vasil'yevich

Vysotnoye oborudovaniye samoletov (High-altitude Aircraft Equipment) Moscow, Oshorongiz, 1958. 392 p. 7,000 copies printed.

Reviewer: Grishanov, N. G., Engineer-Colonel, Candidate of Technical Sciences; Ed.: Petrova, I. A.; Tech. Ed.: Rozhin, V. P.; Managing Ed.: Sokolov, A. I.

PURPOSE: This is a textbook approved by the Ministry of Higher Education of the USSR for the course "High-altitude Aircraft Equipment" at vtuzes. It may also be useful to engineers and scientific workers specializing in that field.

COVERAGE: The book describes the principles of construction, basic theories, and engineering design methods for the apparatus used in pressurized aircraft cabins and for oxygen equipment and presents also brief data on the physiology of high-altitude flight. The book mentions designers who made important contributions to the development of pressurized cabins and oxygen equipment, including V. A. Chizhevskiy (1931), A. Ya. Shcherbakov (1934-36), V. K. Gribovskiy (1936),

Card 1/13

High-altitude Aircraft Equipment

757

N. N. Polikarpov, M. N. Petrov, V. M. Petlyakov (1939, 1942), V. M. Myasishchev (1939-45), etc. The authors express their gratitude to Engineer P. I. Zhitenov for his aid with section 5.4 to Chapter V. There are 10 Soviet references.

TABLE OF CONTENTS:

Preface	3
Symbols	5
Introduction	8
Ch. I. Atmospheric, Physiological, and Hygienic Conditions of High-altitude Flight	13
1.1. General information regarding the earth's atmosphere	13
1. Structure of the atmosphere	13
2. Composition of the air	17
3. Standard atmosphere	19

Card 2/13

757

High-altitude Aircraft Equipment

1.2.	Effect of high-altitude conditions on the human organism	21
1.	Brief information on the physiology of human respiration	21
2.	Partial pressure of oxygen	24
3.	Phenomenon of oxygen starvation	25
4.	Specific ailments in the human organism caused by sudden changes in flight altitude	27
5.	Explosive decompression	29
6.	Effect of cosmic rays on the human organism	31
7.	Effect of reduced air temperature and humidity on the human organism	32
8.	Airplane noises	36
Ch. II.	Technical Safety of High-altitude Flight	37
2.1.	Methods of insuring technical safety in high-altitude flight	37
1.	Oxygen apparatus	37
2.	Pressure suits	39
3.	Pressurized cabins	40
2.2.	General information on pressurized cabins	40
1.	Physiological and hygienic requirements for pressurized cabins	40

Card 3/13

757

High-altitude Aircraft Equipment

2. Rules of air-pressure regulation in pressurized aircraft cabins	44
3. Schematic layouts of pressurized cabins	47
2.3. Equipment of pressurized cabins	54
1. Classification of high-altitude equipment	54
2. Requirements for high-altitude equipment	55
Ch. III. Pressurization of Sealed Cabins	57
3.1. Conditions of pressurization and ventilation of sealed cabins	57
1. Ventilation of cabins at low altitudes	57
2. Air supply necessary for pressurization and ventilation at high altitudes	58
3. Available air supply	59
3.2. Sources of pressurization of cabins	62
1. Pressurization of cabins by means of aircraft-engine compressors	63
2. Pressurization of cabins by separate superchargers	68
3. Pressurization of cabins by compressed (or liquefied) air or oxygen in storage tanks	79
3.3. Cabin air-supply systems	80
1. Air ducts	81
2. Noise silencers	87

Card 4/13

High-altitude Aircraft Equipment	757	90
3. Air humidifiers		93
Ch. IV. Pressurization of Cabins		93
4.1. General information		93
1. Leakage from pressurized cabins		94
2. Basic laws of gas outflow		95
3. Approximate formula for determining the discharge of gas in the subcritical case of outflow from a vessel		103
4.2. Determining the magnitude of air leakage from the cabin		103
1. Leakage characteristics of the cabin		106
2. Calculation of the air leakage from the cabin for the supercritical case of outflow		107
3. Calculation of the air leakage from the cabin for the supercritical case of outflow		110
4. Determining the necessary input to compensate for the leakage of air from the pressurized cabin		112
4.3. Methods of pressurization of cabins		112
1. Sealing the seams		113
2. Sealing the movable part of the canopy, escape hatches, and doors of cabins		

Card 5/13

High-altitude Aircraft Equipment

757

- 3. Sealing the glasswork 115
- 4. Sealing the cabin outlets for airplane control system linkages 115
- 4.4. Checking airtightness of cabin 119
- 1. Checking airtightness of cabin by the method of compensating for the escape of air 119
- 2. Checking airtightness of cabin by the method of measuring the rate of pressure drop 121
- 3. Comparative evaluation of the different methods of checking the airtightness of a cabin 123

Ch. V. Temperature Range of Pressurized Cabins 127

5.1. General information 127

- 1. Temperature field within a pressurized cabin 128
- 2. Heating source for warming the air in the cabin 130
- 3. Heat losses in pressurized cabins 132
- 4. Methods of stabilization of air temperature in the cabin 133

5.2. Heating pressurized cabins 133

- 1. Systems for heating cabins 135
- 2. Airplane heating equipment

Card 6/13

High-altitude Aircraft Equipment

157

3. Means of preventing moisture condensation and icing of the glass-work of the cabin	137
5.3. Cooling pressurized cabins	142
1. Methods of cooling	142
2. Air-cooled heat exchangers	143
3. Compression-evaporation cooling system	153
4. Cooling system with a turbo-condenser	154
5. Evaporative cooling systems	160
5.4. Thermal analysis of pressurized cabins	161
1. Heat balance of a cabin	161
2. Sequence of thermal analysis for a cabin under steady-state conditions	173
Ch. VI. Purifying and Regenerating the Air in Pressurized Cabins	175
6.1. Ventilation calculations for pressurized cabins	175
1. Determining the necessary air supply from the permissible concentration of toxic components	175
2. Increase in concentration of gaseous admixtures in a closed unventilated space	179

Card 7/13

High-altitude Aircraft Equipment	757	
6.2. Apparatus for purifying and regenerating the air		182
1. Filters		182
2. Absorbing elements for regenerators		187
3. Ventilators		191
4. Injectors		194
Ch. VII. Regulation of the Pressurized Cabin		201
7.1. Regulation of the pressure in a pressurized cabin		202
1. Differential equation of the cabin		202
2. Determining the coefficients of the cabin equation		206
3. Estimating the properties of a cabin for the purpose of pressure regulation		206
7.2. Estimating the properties of a cabin for the purpose of temperature regulation		212
1. Differential equation of the cabin		212
2. Estimating the properties of a cabin for the purpose of temperature regulation		215

Card 8/13

High-altitude Aircraft Equipment	757	219
Ch. VIII. Regulation of the Air Supply		219
8.1. General information		220
1. General requirements of regulators for pressurized aircraft cabins		220
2. Variation of air supply with altitude		222
3. Methods of regulating the air supply		224
8.2. Description of cabin air-supply automatic controls		224
1. Direct-action air-supply automatic controls		228
2. Indirect-action air-supply automatic controls		234
8.3. Analysis of the dynamic stability of air-supply regulation systems		234
1. Stability analysis of a system with a direct-action regulator		241
2. Stability analysis of a system with an indirect-action regulator		251
Ch. IX. Pressure Regulation in Pressurized Cabins		251
9.1. General information on pressure regulators		251
Layouts of pressure regulators		264
9.2. Determining the basic parameters of the pressure regulator		264
1. Determining the flow-passage cross-sectional area of the pressure regulator valve		264

Card 9/13

High-altitude Aircraft Equipment

757

- 2. Selecting the form and dimensions of the regulating mechanism 270
- 3. Determining the parameters of the sensitive elements of the pressure regulator 272
- 9.3. Dynamic stability of pressure-regulation systems 272
- 1. Differential equation of the direct-action pressure regulator 273
- 2. Differential equation of a pressure regulator with a pneumatic servo-drive 275
- 3. Dynamic stability of the regulation system 279
- Ch. X. Temperature Regulation of Air in Pressurized Cabins 279
- 10.1. General information on temperature regulators 279
- 1. Preliminary remarks 280
- 2. Layouts of temperature regulators 281
- 10.2. Automatic temperature regulation of the air in pressurized cabins 284
- 1. Preliminary remarks 287
- 2. Differential equations of a temperature gauge with a wire-wound resistor as the heat-sensitive element 287

Card 10/13

High-altitude Aircraft Equipment

757

3. Differential equations of a temperature gauge with a bi-metallic heat-sensitive element	290
4. Analysis of the dynamic stability of the regulation system	291
Ch. XI. Safety and Control Devices	299
11.1. Safety devices of a cabin	299
1. Check valve of the pressurization system	300
2. Safety valves for the cabin	301
3. Vacuum valve for the cabin	308
4. Emergency valve for reducing pressure	320
11.2. Control instruments	320
1. Altitude and pressure-drop indicator	322
2. Cabin-air thermometers	322
3. Altitude warning devices	324
4. Air flow meter	331
Ch. XII. Oxygen Equipment and Pressure Suits	331
12.1. General information on aircraft oxygen equipment	331
1. Classification of oxygen systems and oxygen devices	335
2. Comparative evaluation of oxygen devices	335
3. Altitudes of application of oxygen devices	336

Card 11/13

High-altitude Aircraft Equipment

757

4.	Special considerations in the use of oxygen equipment	338
12.2.	Oxygen devices with continuous oxygen supply	339
1.	Oxygen device KP-22	339
2.	Oxygen device KP-23 for parachuting	343
12.3.	Oxygen devices with periodic oxygen supply	345
1.	Oxygen device KP-18	345
2.	Oxygen device KP-16	350
3.	Oxygen devices with excess pressure	353
12.4.	Liquid-oxygen devices	356
1.	Special features of the use of liquid oxygen	356
2.	Liquid-oxygen device	359
12.5.	Selection and calculation of basic parameters of oxygen devices	363
1.	Calculation of pressure reducer	363
2.	Calculation of basic parameters of automatic membrane-type device	368
12.6.	Determining the amount of oxygen required for the airplane crew during the flight	373
1.	Oxygen tanks	373
2.	Determining the amount of oxygen required for a flight	374

Card 12/13

High-altitude Aircraft Equipment

757

12.7. Distribution and mounting of oxygen equipment on the airplane	376
1. Special features of placing and mounting of oxygen-equipment systems on the airplane	376
2. Standard layouts of oxygen equipment	377
12.8. Pressure suits	379
1. General information	379
2. Pressure suits of ventilated type	380
3. Pressure suits of regeneration type	381
4. Altitude for pressure suits	382
5. High-altitude pressurized suit	385

References	387
------------	-----

AVAILABLE: Library of Congress

Card 13/13

IS/flc
11-24-58

YEGOROV, M. S.

At high altitudes. Grazhd.av. 16 no.1:25-26 Ja '59. (MIRA 12:3)
(Navigation (Aeronautics))

YEGOROV, M. S.

High Altitude Aircraft Equipment, by L.T. Bykov,
M.S. Yegorov and P.V. Tarasov. New York, London, Per-
gamon Press, 1961.

xv, 430 p. illus., diagrs., graphs, tables.

Translated from the original Russian: Vysotnoye
Oborudovaniye Samoletov, Mosclw, 1958.

References: P. 430.

YEGOROV, M.T. (Chaboksary).

Bees hiving in cliffs. Priroda 46 no.1:118 Ja '57. (MLBA 10:2)
(Odessa Province--Bees)

YEGOROV, M.V., otvetstvennyy red.; VERDNIKOV, Ya.V., nauchnyy red.;
LEVOCHKINA, L.I., tekhn.red.

[Collection of materials of the International Conference on
Shipbuilding] Sbornik materialov Mezhdunarodnoi konferentsii po
sudostroyeniyu. Leningrad, Gos. soizuznoe izd-vo sudostroita.
promyshl., 1957. 262 p. (MIRA 11:6)

1. Mezhdunarodnaya konferentsiya po sudostroyeniyu, Leningrad, 1956.
(Shipbuilding--Congresses)

MUYZEMNEK, Yu.A.; GABOV, O.A.; YEGOROV, M.V.

Testing the model of a ball mill. Obog. rud 6 no.5:39-42 '61.
(MIRA 15:1)

1. Ural'skiy zavod tyazhelogo mashinostroyeniya imeni S.
Ordzhonikidze.

(Crushing machinery--Models)

PANKRATOV, S.A., doktor tekhn. nauk; YEGOROV, M.V., inzh.

Dynamic processes in cone-shaped machines for coarse-crushing. Stroil.
i dor. mash. 10 no.10:32-33 0 '65. (MIRA 18:10)

EGOROV, M. E. and V. I. DEMENT'EV.

Tekhnologiya mekhanicheskoi obrabotki metallov. Izd. 3., dopoln. Dop. v kachestve uchebn. posobiia dlia mashinostroit. vtuzov i tekhnikumov. Moskva, Mashgiz, 1946. 471 p. illus.

First ed. published under title: Tekhnologicheskie protsessy obrabotki detalei no metallovezhushchikh stankakh. (Technological processes of machining machine parts.)

DLC: TJ1230.E3 1946

(Technology of metal machining.)

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

YEGOROV, M.Ye., doktor tekhnicheskikh nauk, professor; IVANOV, A.S.,
professor, retsenzent, RASKATOV, V.M., inzhener, redaktor;
TIKHONOV, A.Ya., tekhnicheskiiy redaktor.

[Principles of design for machine-guilding factories] Osnovy
proektirovaniia mashinostroitel'nykh zavodov. Izd. 4-o, perer.
i dop. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,
1954. 588 p. (MLRA 7:12)
(Factories--Design and construction) (Machinery industry)

TISHIN, Sergey Dmitriyevich, dotsent, kandidat tekhnicheskikh nauk; ~~YEGOROV~~,
M.Ye., professor, doktor tekhnicheskikh nauk, retsenzent; UVAROVA,
A.Y., tekhnicheskiy redaktor

[Formulas for basic machine working time with metal cutting machines]
Formuly osnovnogo tekhnologicheskogo (mashinnogo) vremeni raboty na
metallorazreshchikh stankakh; spravochnik. Moskva, Gos. nauchno-tekhn.
izd-vo mashinostroit. lit-ry, 1956. 109 p. (MLRA 9:12)
(Metal cutting)

YEGOROV, M.Ye.; KHAYLIS, G.A.

Results of testing Czechoslovak flax harvesting machines.
Sel'khoz mashina no.2:28-31 F '56. (MLRA 9:5)
(Czechoslovakia--Harvesting machinery) (Flax--Harvesting)

YEGOROV, M.E.

USSR / Cultivated Plants. Plants for Technical Use.
Oil Plants. Sugar Plants.

M

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 34746

Author : Yegorov, M.E.

Inst : All-Union Scientific Research Institute for Flax.

Title : Mechanized side-dressing of Long-Retted Flax

Orig Pub : Lyen i konoplya, 1957, No 6, 24-26.

Abstract : Crop experiments in collective farms of the district of Kalinin, conducted by the All-Union Scientific Research Institute for Flax, for the study of side-dressing methods on wide-row seed cultivations by means of a cultivator-fertilizer spreading unit KPH-2.8, have shown the high effectiveness of this method and the advantage of overall spreading of the fertilizer, as compared to surface fertilization by the broadcast side-dressing --Smirnov

Card 1/1

KHASHOV, V.N.; YEGOROV, M.Ye.

New disengaging hydraulic clutch designed by fitter F.K. Kuz'min.
Trakt. i sel'khoz mash. 8:43 Ag '58. (MIRA 11:8)

1. Vladimirskiy traktornyy zavod im. A.A. Zhdanova.
(Clutches (Machinery))

YEGOROV, M.Ye.; RYABTSEV, V.N.

Results of testing flax pullers. Trakt. i sel'khoz mash. no.12:20-21
D '58. (MIRA 11:12)

(Flax--Harvesting) (Harvesting machinery--Testing)

YEGOROV, M.Ye., doktor tekhn. nauk, prof.; GOKHVAT, L.Ya., inzh.; ZEL'BET,
B.H., inzh.

Optimum allowances in grinding antifriction bearing rings. Vest.
mash. 38 no.4:51-55 Ap '58.
(Bearings (Machinery)) (Grinding and polishing)

YEGOROV, M.Ya., zasluzhennyy deyatel' nauki i tekhniki, doktor tekhn.
nauk, prof.; GLINKIN, N.M., dotsent, red.; KUNIN, P.A., red.;
CHERNOVA, Z.I., tekhn.red.; SOKOLOVA, T.F., tekhn.red.

[Fundamentals of designing machinery plants] Osnovy proektiro-
vaniia mashinostroitel'nykh zavodov. Izd.5., perer. Moskva,
Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 480 p.

(MIRA 12:11)

(Machinery industry)

YEGOROV, M. Ye., Cand Agr Sci -- (diss) "Study of new methods of feed supplements of dolgunetz flax /a variety of flax yielding longer and better fiber/." Gor'kiy, 1960. 16 pp; (Ministry of Agriculture Belorussian SSR, Belorussian Order of Labor Red Banner Agricultural Academy); 150 copies; price not given; (KL, 27-60, 156)

YEGOROV, M.Ye., zasl. deyatel' nauki i tekhniki, doktor tekhn. nauk, prof.

[Lecture course on technological processes in the manufacture of machinery] Kurs tekhnologii mashinostroeniia. Moskva, Vses. zaachnyi energ. in-t. Pt.2.[Methods for machining machine-part elements and the technology of assembling processes] Metody mekhanicheskoi obrabotki elementov detalei mashin i tekhnologii sborochnykh protsessov. 1962. 223 p. (MIRA 15:12)
(Machinery--Construction) (Metal cutting) (Assembly-line methods)

YEGOROV, Mikhail Yegorovich, doktor tekhn. nauk, prof.; DEMENT'YEV, Vladimir Ivanovich, kand. tekhn. nauk, dots.; TISH'N, Sergey Dmitriyevich, kand. tekhn. nauk, dots. [deceased]; DMITRIYEV, Vitaliy L'vovich, kand. tekhn. nauk, dots.; VLADZIYEVSKIY, A.P., doktor tekhn. nauk, prof., retsenzent; KUNIN, P.A., inzh., red.

[Technology of machinery manufacture] Tekhnologiya mashinostroeniia. Moskva, Vysshaya shkola, 1965. 589 p.

(MIRA 18:8)

YEGOROV, M.Ye.; L'VOVA, A.

Paleontological finds in Chuvashia. Izv. Vses. geog. ob-va
94 no.4:347-349 J1-Ag '62. (MIRA 15:9)
(Chuvashia—Mammals, Fossil)

YEGOROV, N.

Construction and operation of the gas system in the city of Ufa.
Zhil.-kom.khoz. 9 no.1:8-10 ' 59. (MIRA 12:3)

1.Upravlyayushchiy trestom "Ufagorgaz."
(Ufa--Gas distribution)

YEGOROV, N., inzhener-podpolkovnik; CHERNIKOV, P., inzhener-podpolkovnik

Hose of rubber and fabric. Tyl i snab.Sov. Voor.Sil 21 no.2:87-88
P '61. (MIRA 14:6)

(Hose)

YEGOROV, N., kand.tekhn.nauk; TSVETKOV, N., inzh.

Landing stage superstructures made of lightweight reinforced concrete.
Rech. transp. 19 no.11:26-28 N '60. (MIRA 13:11)
(Hydraulic structures)
(Reinforced concrete construction)

YEGOROV, H.

New features in the vegetable trade. Sov.torg. no.12:32-35
D '58. (MIRA 12:2)

1. Direktor torga "Mosovoshch."
(Vegetable trade)

YEGOROV, N.

New features in the vegetable trade. Sov.torg. 34 no.7:57-59
Jl '61. (MIRA 14:7)

1. Direktor torga "Mosovoshch".
(Moscow---Vegetable trade)

YEGOROV, N., general-leutenant

Party organization and technical training. Tekh. i vooruzh. no.1:
4-8 Ja '64. (MIRA 17:6)

1. Chlen Voennoy soveta, nachal'nik politicheskogo upravleniya
Moskovskogo voyennogo okruga.

YECOROV, N., general-leutenant

The CPSU on the tightening of military discipline. *Komm.Voeruzh.-*
Sil 2 no.20:30-38 0 '61. (MIRA 14:9)

1. Chlen Voen'nogo soveta - nachal'nik politupravleniya Moskovskogo
voen'nogo okruga. (Military discipline)

YEGOROV, N., general-leutenant

Education of teachers. Voen. vest. 42 no.8:7-11 Ag '62.
(MIRA 15:7)
(Russia--Army--Officers)

YEGOROV, H.; general-lieutenant

The Communist Youth League organization, the commander's support.
Komm. Voennoy. Sil 5 no. 2:24-31 Ja '65.

(MIRA 18:3)

1. Chlen Voennoy sovet, nachal'nik politicheskogo upravleniya
Moskovskogo voennogo okruga.

YEGOROV, N.

On the road toward improved organization of cattle feeding. Mias.
ind. SSSR 33 no. 2:29-32 '62. (MIRA 15:5)
(Beef cattle—Feeding and feeds)

ACC NR: AP7003767

SOURCE CODE: UR/0310/66/000/012/0031/0032

AUTHOR: Yegorov, N. (Docent)

ORG: none

TITLE: "Regulations for the building of reinforced-concrete inland vessels" of the RSFSR River Registry (1966 edition)

SOURCE: Rechnoy transport, no. 12, 1966, 31-32

TOPIC TAGS: shipbuilding engineering, inland vessel data, reinforced concrete
~~reinforced concrete vessels~~

ABSTRACT: In recent years great progress has been made in the use of reinforced concrete in shipbuilding. The building of and the types of reinforced-concrete vessels have increased; building techniques and hull design have been radically improved, and the use of reinforced concrete for superstructures has been introduced. This has resulted in the publication of new "Regulations for the building of reinforced-concrete inland vessels." The last regulations were published in 1958 and covered all vessels of this type, including seagoing ships. This article briefly covers various aspects of the regulations and includes two tables: 1) minimum thickness of slabs for various hull sections and types of concrete; 2) safety factors for given loads and load-carrying structural members. Orig. art. has: 2 tables. [TT]

YEGOROV, N.A.; LITVINENKO, Yu.A.

Devices used in assembling and dismounting of the ZIL-150 motortrucks
(experience of the Moscow Automobile Plant). Obm. tekhn. opyt. na avt.
transp. no. 4:45-57 '60. (MIRA 13:12)
(Motortrucks--Maintenance and repair)

YEGOROV, N.A.

14(6)

SOV/98-59-4-1/17

AUTHOR:

Aleksandrov, B.K., Professor, Corresponding Member
of the AS USSR, Yegorov, N.A., and Oborotova, M.
G., Engineers

TITLE:

Ways to Improve the Design of River-Bed Type Hydro-
electric Power Plants (Puti uluchsheniya konstruk-
tsiy ruslovykh gidroelektrostantsiy) For Discus-
sion

PERIODICAL:

Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 4, pp
1-7 (USSR)

ABSTRACT:

The authors are of the opinion that Soviet river-
bed type hydroelectric power plants are too bulky
to justify their high construction costs. Their
design can be easily made lighter to bring about
substantial savings in concrete, reinforced concrete,
and metal for power-generating equipment. Lighter
construction methods will also result in quicker
construction. Plans have been worked out to create
a power plant the dam and powerhouse of which con-
sist of a single unit. The principle of this com-

Card 1/4

SOV/98-59-4-1/17

Ways to Improve the Design of River-Bed Type Hydroelectric Power Plants; For Discussion

bined-type power plant was applied in the Kamskiy, Irkutskiy, and Kayrak-Kumskiy gidrouzly (Kama, Irkutsk, Kayrak-Kumy Hydroelectric Power Plants) and will be realized in the planned Cheboksarskiy and Plyavinskiy gidrouzly (Cheboksary and Plyavinyas Hydroelectric Power Plants). An additional method to save metal is to build smaller generators, as proposed by Professor B.K. Aleksandrov in 1955, for the Cheboksary GES-project. A smaller generator results in a larger spillway opening, which, in turn, effects a greater flow-through capacity. The "multiplier" - a toothed transmission between the turbine shaft and that of the generator - serves also for scaling down the generator. A new gearing developed by Doctor of Technical Sciences M.L. Novikov is able to transmit power of up to several tens of thousands of kw at a rather high efficiency rate. Professor G.N. Petrov and Docent V.L. Lipkovskiy have developed a new combined generator-transformer

Card 2/4

SOV/98-59-4-1/17
Ways to Improve the Design of River Bed-Type Hydroelectric Power
Plants; For Discussion

for a voltage as high as 110 and even 220 kv. Professor B.K. Aleksandrov is working on lessening the weight of hydroelectric power plant bodies at the Moskovskoye otdeleniye instituta Gidroenergoprojekt or Mosgidep (Moscow Department of the Gidroenergoprojekt Institute) in which the above-mentioned principles are being taken into consideration. The authors present four diagrams of proposed power plant arrangements for the Cheboksary Hydroelectric Power Plant. They show that both the equipment weight and the volume of construction work can be considerably reduced. The new principles also hold true for the construction of locks for shipping. Diagram Nr 5 shows a cribwork wall consisting of two hollow reinforced concrete elements, the volume of which amounts to only 15-20% of a solid concrete wall. Diagram Nr 6 shows the cross section of lock-chamber walls

Card 3/4

SOV/98-59-4-1/17

Ways to Improve the Design of River Bed-Type Hydroelectric Power
Plants; For Discussion

developed according to the so-called "honeycomb"
principle at the Mosgidep. Set up on the lock cham-
ber's bottom and filled with sand, the new "honey-
comb" structure brings an economy of 470% in con-
crete per running m in 2-way locks. There
are 6 sets of diagrams.

Card 4/4

YEGOROV, N. A.

YEGOROV, N. A.: "The working of thick deposits of hard ores using systems with 'magazining'". Kiev, 1955. Min Higher Education USSR. Kiev Order of Lenin Polytechnic Inst. (Dissertations for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya letopis', No. 52, 24 December, 1955. Moscow.

YEGOROV, N.A.

Working thick deposits of hard ores with shrinkage systems.
Sbor.trud.Inst.gor.dela AN URSR no.5:100-108 '58. (MIRA 15:5)
(Mining engineering)

YEGOROV, N.A.

Getting ore out of a stope area. Sbor.trud.Inst.gor.dela AN URSR
no.5:109.113 '58. (MIRA 15:5)

(Ore handling)

YEGOROV, H.A.

Floating chute for loading skips. [from "Mine and Quarry Engineering,"
December 1959, "Mining Magazine, no.1, 1959, "Mining Equipment,"
nos.8-9, 1959]. Ugol' ~~Mag.~~ 4, no.8:44 Ag '60. (MIRA 13:9)
(Mine hoisting)

YEGOROV, N.A.

Rapid shaft sinking by means of boring in the German Federal
Republic. Ugol'Ukr. no.6:43 Je '61. (MIRA 14:7)
(Germany, West—Shaft sinking)

YEGOROV, N.A.

Pillar drawing in shrinkage stoping. Sbor.trud.Inst.gor.dela AN
URSR no.8:11-21 '61. (MIRA 15:2)
(Stoping(Mining))

YEGOROV, N.A.

Drawing ore with an inclined contact. Sbor.trud.Inst.gor.dela AN
URSR no.8:22-27 '61. (MIRA 15:2)

(Mining engineering)

YEGOROV, N.A.; BORISOVA, G.A., red.; GROMOV, A.S., tekhn. red.

[New types of vegetable markets; from the experience of the Moscow vegetable market] Novye tipy ovoshchnykh bazarov; iz opyta raboty torga Mosovoshch. Moskva, Gos.izd-vo torg.lit-ry, 1961. 44 p.
(MIRA 14:11)

(Moscow—Vegetable trade)

YEGOROV, N.A.

Bar thread connections in long-hole drilling. Ugol' Ukr.

6 no.6:41-42 Jo '62.

(MIRA 15:7)

(Rock drills)

YEGOROV, N.A., kand.tekhn.nauk

Mercury industry in foreign countries. Met. i gornorud. prom.
no.2:92-94 Mr-Ap '62. (MIRA 15:11)
(Mercury industry)

STARIKOV, N.A., akademik [deceased]; YEGOROV, N.A., kand.tekhn.nauk

Development of open-pit operations in the Ukraine. Gor.
zhur. no.6:12-14 Je '62. (MIRA 15:11)

1. Institut gornogo dela AN UkrSSR, Kiyev.
(Ukraine—Strip mining)

YEGOROV, N.A.

Basic means of lowering rock pressure in workings of the draw
horizon. Trudy Inst.gor.dela AN URSR no.11:82-88 '62.

(MIRA 16:2)

(Rock pressure)

(Mining engineering)